



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,149	07/10/2003	Bruce Gregory Warren	895,080-015	1386
42178 7590 01/03/2008 EMULEX DESIGN & MANUFACTURING CORPORATION C/O MORRISON & FOERSTER LLP 555 WEST FIFTH STREET, SUITE 3500 LOS ANGELES, CA 90013			EXAMINER HSU, ALPUS	
			ART UNIT 2619	PAPER NUMBER
			MAIL DATE 01/03/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/617,149

Applicant(s)

WARREN ET AL.

Examiner

Alpus H. Hsu

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

1. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 6 of copending Application No. 10/612,753.

Although the conflicting claims are not identical, they are not patentably distinct from each other because by omitting the additional element of routing table, claim 6 of copending Application No. 10/612,753 claims the same invention as claim 1 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned

with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 7-8, "the receipt of certain arbitrated Loop primitives" lacks antecedent basis.

In claim 6, lines 2-3, "the previous OPEN Fibre Channel primitive (OPN)" lacks antecedent basis.

In claim 15, line 2, "the SCSI initiators" lacks antecedent basis.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1, and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (of record) in view of Fredin et al. in U.S. Patent No. 6,529,963 B1 (newly cited).

Consider claim 1, Black et al. teaches a system for interconnecting Fibre Channel Arbitrated Loop devices (Fig. 2, N1, N2) comprising a first and second Fibre Channel Arbitrated loop switches (Fig. 9 @ 255,257; in switch mode, loop switches are connected together as shown with the state machine-LPSM) including a plurality of ports (102, 104, 106), connectivity apparatus (Fig. 4 @ 100 CROSSBAR SWITCH for connection of I/P or O/P of ports) and route determination logic (Fig. 4, 127), the route determination logic creating routes based on the receipt of certain arbitrated Loop primitives (primitives received for buffer management in nodes with routing lookup table, col. 15, lines: 2-5), but fails to teach a system having a first Fibre channel arbitrated loop switch, a second Fibre channel arbitrated loop switch and these first and second loop switches are interconnected by multiple interswitch links and transfer frames on both ports.

However, in the same field of endeavor, Fredin et al. discloses a system having a first and a second Fibre channel arbitrated loop switch and where two switches are interconnected by multiple interswitch links (220) and transfer frames on both ports (col. 1, line 56 to col. 2, line 15, figures 2 and 3).

Therefor, it would have been obvious to a person of ordinary skills in the art at the time of invention was made to combine Black et al. with Fredin et al. to obtain support for more users for the system. The motivation is to occupy more users in the system inexpensively.

Consider claim 2, and as applied to claim 1 above, Black et al. as modified by Fredin et al. discloses the claimed invention. Further taught by combination and specifically disclosed by Fredin et al. the system for interconnecting Fibre Channel Arbitrated Loop devices wherein a first group of devices make connection through a first interswitch link and a second group of devices make connection through a second, different interswitch link (col. 2, lines 7-15).

7. Claims 3, 4, 5, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (of record) in view of Fredin et al. (newly cited) and further in view of Soloway et al. (of record).

Consider claim 3, and as applied to claim 1 above, Black et al. as modified by Fredin et al. fails to disclose the system for interconnecting Fibre Channel Arbitrated Loop devices of claim 1 further including a trunk-grouping table. In the same field of endeavor, Soloway et al. discloses interconnection of Fibre Channel Arbitrated Loop devices of claim 1 using a trunk-grouping table (Trunking design for aggregation of links for routing traffic in Fibre Channel Switching environment, col. 1, lines: 66-67, and col. 2, lines: 1-5).

Therefore, it would have been obvious to a person of ordinary skills in the art at the time of invention was made to combine Black et al. as modified by Fredin et al. for interconnecting Fibre Channel Arbitrated Loop devices with the method of Soloway et al. for using a Trunking design for the efficient use of ports. The motivation is to use Trunking feature for routing traffic efficiently in Fibre channel switching environment.

Consider claim 4, and as applied to claim 3 above, Black et al. further modified by Fredin et al. in view of Soloway et al. discloses the system according to claim 3. Further taught by combination and specifically by Soloway et al. where the system for interconnecting Fibre

Channel Arbitrated Loop devices of claim 3 wherein the table is in the router (Trunking is used for managing available communication bandwidth. This is done by monitoring various usages and then adjusts the tables in routing to move data, col. 6, lines: 24-34).

Consider claim 5, and as applied to claim: 3 above, Black et al. further modified by Fredin et al. in view of Soloway et al. discloses the system according to claim: 3. Further taught by combination and specifically by Soloway et al. where the system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table automatically learns the grouping (Trunking effects load balancing on links by monitoring various usages and then adjusts the tables from the knowledge gain or learned by monitoring and then adjusting the table in routing to move data, col. 6, lines: 27-34).

Consider claim 12, and as applied to claim 3 above, Black et al. further modified by Fredin et al. in view of Soloway et al. discloses the system according to claim 3. Further taught by combination and specifically by Soloway et al. in the system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table identifies a duplicate port for a device (Trunking analyzes every entry of the data structure in the server for routing, and depending on certain rerouting criteria, flow is rerouted to an alternate or duplicate route, col. 8, lines 5-12).

Consider claim 14, and as applied to claim 3 above, Black et al. further modified by Fredin et al. in view of Soloway et al. discloses the system according to claim 3. Further taught by combination and specifically by Soloway et al. in the system for interconnecting Fibre Channel Arbitrated Loop devices of claim 12, wherein the duplicate port is used as a failover port (Trunking analyzes every entry of the data structure in the server for routing, and depending

on certain rerouting criteria, flow is rerouted to an alternate or duplicate route. Flow is rerouted to an alternate route for redundancy, col. 8, lines 5-12).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Black et al. (of record) in view of Fredin et al. (newly cited) and Soloway et al. (of record) as applied to claim 3 above, and further in view of Global Engineering document (of record).

Consider claim 9, and as applied to claim 3 above, Black et al. further modified by Fredin et al. in view of Soloway et al. discloses the system according to claim 3. Further taught by combination and specifically by Soloway et al. in the system for interconnecting Fibre Channel Arbitrated Loop devices of claim 3 wherein the trunk grouping table contains information (Trunking design for aggregation of links for routing traffic in Fibre Channel Switching environment, col. 1, lines 66-67, and col. 2, lines 1-5. Also Trunking analyzes the data structure in the server for routing, col. 8, lines 5-7). In addition Global Engineering document discloses passing information on well known SCSI initiators (Server which is also a SCSI initiator learns which SCSI target has a data, Page 122, lines 13- 18).

9. Claims 6-8, 10, 11, 13 and 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DeFoster et al., Westby et al., Henson et al., Berman '053, Allen et al., and Green et al. are further cited to show the common feature of data communication utilizing Fibre Channel Arbitrated Loops similar to the claimed invention.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (571)272-3146. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHH



Alpus H. Hsu
Primary Examiner
Art Unit 2619